What is claimed is:

1. A core of a motor comprising:

a plurality of core sheets, which are of one type and are stacked together, each core sheet including:

an inner annular portion;

an outer annular portion; and

a plurality of stays that are arranged at equal angular intervals in a circumferential direction of the core sheet and connect the inner annular portion to the outer annular portion, so that each adjacent two stays of the core sheet define a window opening therebetween, wherein:

the inner annular portion has a rotatable shaft securing hole that extends through a center of the inner annular portion in an axial direction of the core to receive a rotatable shaft of the motor, and the outer annular portion includes a plurality of teeth that are arranged at equal angular intervals in the circumferential direction of the core sheet and extend radially outward from the outer annular portion, wherein each adjacent two teeth of the core sheet define a slot therebetween;

each core sheet further includes at least one projection, at least one recess and a receiving portion, which are all arranged along a concentric circle that is concentric to a rotational axis of the rotatable shaft of the motor, wherein the at least one projection is arranged in a first axial end surface of the core sheet, and the at least one recess and the receiving portion are arranged in a second axial end surface of the core

sheet in such a manner that each one of the at least one projection of the core sheet is opposed to a corresponding one of the at least one recess of the core sheet in the axial direction of the core;

at least two adjacent core sheets of the core sheets are displaced one after the other by a predetermined displacement angle in a circumferential direction of the core in such a manner that the stays of one of the at least two adjacent core sheets are partially overlapped with the stays of the other one of the at least two adjacent core sheets, respectively, and the slots of the one of the at least two adjacent core sheets are aligned with the slots of the other one of the at least two adjacent core sheets in the axial direction of the core, respectively; and

the second axial end surface of the one of the at least two adjacent core sheets is opposed to the first axial end surface of the other one of the at least two adjacent core sheets, and each one of the at least one projection arranged in the first axial end surface of the other one of the at least two adjacent core sheets is substantially, entirely received in a corresponding one of the receiving portion and the at least one recess arranged in the second axial end surface of the one of the at least two adjacent core sheets, so that the first axial end surface of the other one of the at least two adjacent core sheets closely contacts the second axial end surface of the one of the at least two adjacent core sheets.

2. A core according to claim 1, wherein:

the at least one projection, the at least one recess and the receiving portion of each core sheet are arranged such that each core sheet is engageable with adjacent one of the core sheets only when each core sheet is placed in one of first and second angular positions with respect to the adjacent one of the core sheets;

each core sheet is placed in the first angular position when the receiving portion of each core sheet is aligned with the receiving portion of the adjacent one of the core sheets in the axial direction of the core; and

each core sheet is placed in the second angular position when each core sheet is displaced by the predetermined displacement angle with respect to the adjacent one of the core sheets in the circumferential direction of the core.

3. A core according to claim 1, wherein the core sheets are progressively displaced one after the other by the predetermined displacement angle in the circumferential direction of the core in such a manner that the stays of the core sheets form a plurality of stairstep-shaped guide walls that are circumferentially spaced from each other and spirally extend in the axial direction of the core, wherein the stairstep-shaped guide walls guide and force air to flow in the axial direction of the core through the window openings of the core sheets when the core is rotated.

4. A core according to claim 1, wherein the receiving portion of each core sheet is a through hole that penetrates through the

core sheet.

5. A core according to claim 1, wherein the receiving portion of each core sheet is a blind hole, and a portion of the first axial end surface of the core sheet, which opposes the blind hole in the axial direction of the core, is flat.

6. A core according to claim 1, wherein:

the at least one projection includes a plurality of projections; and

the at least one recess includes a plurality of recesses.

7. A core according to claim 1, wherein:

a number of the teeth of each core sheet is sixteen;

a number of the stays of each core sheet is seven; and

the predetermined displacement angle is 202.5 degrees.

8. A core according to claim 7, wherein:

the stays of each core sheet include first to seventh stays, which are arranged in this order in a clockwise direction when the first to seventh stays are seen from the second axial end surface of the core sheet;

the recesses of each core sheet include first to third recesses, which are arranged in this order in the clockwise direction when the first to third recesses are seen from the second axial end surface of the core sheet, wherein a circumferential center of the first stay and a circumferential

center of the first recess are aligned with a circumferential center of one of the teeth in a radial direction of the core sheet;

the receiving portion of each core sheet is positioned between the third recess and the first recess; and

an angular interval between the first recess and the third recess, an angular interval between the third recess and the second recess, and an angular interval between the second recess and the receiving portion are all set to 202.5 degrees.

9. A core according to claim 1, wherein the predetermined displacement angle is defined by the following equation: the predetermined displacement angle = (360 degrees - the angular interval of the teeth)/a number of the stays.

10. A core according to claim 1, wherein:

the teeth of each core sheet include sixteen teeth that are arranged at 22.5 degree intervals in the circumferential direction of the core sheet;

the stays of each core sheet include first to third stays, which are arranged in this order in a clockwise direction when the first to third stays are seen from the second axial end surface of the core sheet;

the at least one recess of each core sheet includes first to third recesses, which are arranged in this order in the clockwise direction when the first to third recesses are seen from the second axial end surface of the core sheet, wherein a circumferential center of the first stay and a circumferential

center of the first recess are aligned with a circumferential center of one of the teeth in a radial direction of the core sheet;

the receiving portion of each core sheet is positioned between the third recess and the first recess;

an angular interval between the first recess and the second recess, an angular interval between the second recess and the third recess, and an angular interval between the third recess and the receiving portion are all set to 112.5 degrees;

an angular interval between the receiving portion and the first recess is set to 22.5 degrees; and

the predetermined displacement angle is 112.5 degrees.

11. A core according to claim 1, wherein:

the teeth of each core sheet include sixteen teeth that are arranged at 22.5 degree intervals in the circumferential direction of the core sheet;

the stays of each core sheet include first to fifth stays, which are arranged in this order in a clockwise direction when the first to fifth stays are seen from the second axial end surface of the core sheet;

the at least one recess of each core sheet includes first to fifth recesses, which are arranged in this order in the clockwise direction when the first to fifth recesses are seen from the second axial end surface of the core sheet, wherein a circumferential center of the first stay and a circumferential center of the first recess are aligned with a circumferential center of one of the teeth in a radial direction of the core sheet;

the receiving portion of each core sheet is positioned between the fifth recess and the first recess;

an angular interval between the first recess and the second recess, an angular interval between the second recess and the third recess, an angular interval between the third recess and the fourth recess, an angular interval between the fourth recess and the fifth recess, and an angular interval between the fifth recess and the receiving portion are all set to 67.5 degrees;

an angular interval between the receiving portion and the first recess is set to 22.5 degrees; and

the predetermined displacement angle is 67.5 degrees.

12. A core according to claim 1, further comprising a closure core sheet that is placed over any one of the core sheets to close the window openings of that core sheet.

13. A method for stacking a plurality of core sheets of a core of a motor, wherein the core sheets are of one type, and each core sheet includes an inner annular portion, an outer annular portion and a plurality of stays that are arranged at equal angular intervals in a circumferential direction of the core sheet and connect the inner annular portion to the outer annular portion, so that each adjacent two stays of the core sheet define a window opening therebetween, wherein the inner annular portion has a rotatable shaft securing hole that extends through a center of the inner annular portion in an axial direction of the core to receive a rotatable shaft of the motor, and the outer annular

portion includes a plurality of teeth that are arranged at equal angular intervals in the circumferential direction of the core sheet and extend radially outward from the outer annular portion, wherein each adjacent two teeth of the core sheet define a slot therebetween, the method including:

stacking the core sheets such that the core sheets are progressively displaced one after the other by a predetermined displacement angle in a circumferential direction of the core in such a manner that the stays of the core sheets form a plurality of stairstep-shaped guide walls that are circumferentially spaced from each other and spirally extend in the axial direction of the core, while the slots of one of each two adjacent core sheets are aligned with the corresponding slots of the other one of the two adjacent core sheets in the axial direction of the core, and the stairstep-shaped guide walls guide and force air to flow in the axial direction of the core through the window openings of the core sheets when the core is rotated, wherein:

each core sheet further includes at least one projection, at least one recess and a receiving portion, which are all arranged along a concentric circle that is concentric to a rotational axis of the rotatable shaft of the motor, wherein the at least one projection is arranged in a first axial end surface of the core sheet, and the at least one recess and the receiving portion are arranged in a second axial end surface of the core sheet in such a manner that each one of the at least one projection of the core sheet is opposed to a corresponding one of the at least one recess of the core sheet in the axial direction of the

core; and

the second axial end surface of the one of the two adjacent core sheets is opposed to the first axial end surface of the other one of the two adjacent core sheets, and each one of the at least one projection arranged in the first axial end surface of the other one of the two adjacent core sheets is substantially, entirely received in a corresponding one of the receiving portion and the at least one recess arranged in the second axial end surface of the one of the two adjacent core sheets, so that the first axial end surface of the other one of the two adjacent core sheets closely contacts the second axial end surface of the one of the two adjacent core sheets.